

**MEMORANDUM OF COOPERATION
NAT-I-9409**

**IN THE DEVELOPMENT OF
COMMERCIAL SPACE TRANSPORTATION**

BETWEEN THE

**FEDERAL AVIATION ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA**

AND

**DEUTSCHES ZENTRUM FÜR LUFT- UND RAUMFAHRT E.V.
(GERMAN AEROSPACE CENTER),
FEDERAL REPUBLIC OF GERMANY**

RECOGNIZING the Federal Aviation Administration (“FAA”) of the Department of Transportation of the United States of America (“U.S.”) and the Deutsches Zentrum fuer Luft- und Raumfahrt e.V. (German Aerospace Center), a governmentally funded research center, registered non-profit association, organised under the laws of the Federal Republic of Germany (“Germany”), whose registered office is at Linder Hoehe, D-51147 Cologne, Germany, and which is represented by its Executive Board (“DLR”), have a common research interest in promoting safe commercial space operations with the efficient use of navigable airspace, and seeking to benefit from increased mutual cooperation in the area of research for commercial space transportation;

RECOGNIZING DLR is the national aeronautics and space research centre of the Federal Republic of Germany and its extensive research and development work in aeronautics, space, energy, transport, digitalisation and security is integrated into national and international cooperative ventures;

RECOGNIZING both the FAA and DLR desire to promote and encourage research concerning future commercial space transportation solutions with a strong space transportation infrastructure and private sector involvement;

RECOGNIZING the FAA and DLR understand and emphasize the importance of international collaboration in jointly beneficial commercial space transportation-related activities;

RECOGNIZING the FAA and DLR are research centers for commercial space operations and activities and are desirous to conduct research and development to advance commercial space transportation solutions;

NOW THEREFORE, the FAA and DLR (collectively, the "Participants" and individually, a "Participant") have reached the following understandings:

SECTION I— OBJECTIVES

- A. Pursuant to this Memorandum of Cooperation (herein after referred to as "MOC"), the Participants intend to collaborate in the future on problems and projects of mutual interest that are specifically related to commercial space transportation activities to encourage the safe operation of commercial space launch and re-entry vehicles, and with a view toward maintaining or enhancing public safety and safe commercial space operations, among other things, and to promote industry standards and policy.
- B. The objectives of this MOC may be achieved by future cooperation in the following areas, including but not limited to:
1. The exchange of information regarding law, regulations, policies, programs, projects, research results, and publications;
 2. The sharing of established practices;
 3. The joint organization of related symposia, workshops, conferences or working groups; and
 4. Any other cooperative activities jointly determined by the Participants to be beneficial.

SECTION II— IMPLEMENTATION

- A. The Participants intend to implement this MOC and its objectives through specific implementing arrangements that may include annexes, appendices, and attachments ("Implementing Arrangement") to this MOC, describing as appropriate the nature and duration of cooperation for a specific area or purpose, funding, allocation of costs, and other relevant matters. When signed by the duly

authorized representatives of the Participants, such Implementing Arrangements become part of this MOC.

- B. Cooperation among the Participants under this MOC is subject to the availability of funds and other necessary resources, and to their applicable laws and regulations, including applicable international agreements and obligations.
- C. Unless otherwise specified in an Implementing Arrangement to this MOC, each Participant intends to bear the costs of the activities it performs pursuant to this MOC.
- D. Unless otherwise specified in an Implementing Arrangement to this MOC, no hardware, information, or data under the Participant's export control requirements is intended to be exchanged.
- E. Representatives from the FAA and DLR intend to meet periodically to explore proposed activities according to the scope of this MOC and as undertaken pursuant to an Implementing Arrangement to this MOC; and/or to review ongoing activities undertaken pursuant to an approved Implementing Arrangement to this MOC.
- F. The designated points of contact for the administrative and technical coordination and management of this MOC and activities under this MOC are as follows:
 - 1. The designated points of contact for the administrative coordination and management of this MOC, and where all requests for activities under this MOC should be made, are:
 - a. For the FAA:

Africa, Europe & Middle East Staff, AEU-10
Office of International Affairs
Federal Aviation Administration
800 Independence Avenue, S.W.
FOB 10B, 6th Floor East
Washington D.C. 20591
USA

Telephone: +1-202-267-1000
 - b. For DLR:

Nicolas Peter
Head of International Relations

German Aerospace Center (DLR)
Linder Höhe
51147 Cologne
Germany

Telephone: +49 2203 601 2141
Facsimile: +49 2203 601 3907
E-mail: nicolas.peter@dlr.de

- c. The FAA and DLR may change its administrative points of contact through written notification to each other.
2. The Participants intend to provide technical points of contacts in Implementing Arrangements to this MOC.

SECTION III— CONFIDENTIALITY

Unless otherwise specified in an Implementing Arrangement to this MOC, no confidential material (i.e., intellectual property, trade secrets, confidential business data or other data held in confidence) is intended to be exchanged between the Participants.

SECTION IV— MODIFICATIONS, DISPUTES, EFFECTIVENESS, AND DURATION

- A. Any modifications to this MOC, and its Implementing Arrangements, are to be mutually decided in writing by the Participants and become effective when a written modification is signed by both Participants' duly authorized representatives.
- B. Any disagreement arising under this MOC may only be resolved by consultations. This MOC does not impose, nor is it intended to impose, any legal obligations on the FAA and DLR.
- C. This MOC becomes operative on the date of the last signature and may be discontinued at any time by either Participant, however, the Participants intend to provide each other with six months' written notice. Unless otherwise decided by the Participants in writing, discontinuing this MOC also means discontinuing

work on any subsequently concluded Implementing Arrangements under this MOC.

D. The foregoing record represents the understandings reached between the Participants.

FEDERAL AVIATION
ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA

DEUTSCHES ZENTRUM FÜR LUFT- UND
RAUMFAHRT
FEDERAL REPUBLIC OF GERMANY

BY:


Wayne R. Monteith

BY:


Prof. Dr. Pascale Ehrenfreund

TITLE: Associate Administrator, Office of
Commercial Space Transportation

TITLE: Chairwoman of the DLR
Executive Board

DATE: 24 October 2019

DATE: 24 October 2019

PLACE: Washington, D.C.

PLACE: Washington, D.C.

BY:


Prof. Rolf Henke

TITLE: Member of the DLR Executive
Board Aeronautics Research

DATE: 28 October 2019

PLACE: Cologne